Docket No.: 20345/0205062-US0

Application No. 10/596,842 Amendment dated August 18, 2009 Reply to Final Office Action of June 22, 2009

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all previous claims, and listings of claims, in the application.

Claim 1 (Previously Presented): An organic electroluminescent polymer having 9,9-di(fluorenyl)-2,7-fluorenyl unit represented by the following Formula 1:

Formula 1:

$$(R_5)_c$$
 R_1
 R_2
 R_3
 R_4
 R_4
 $R_6)_d$
 $R_7)_a$
 $R_8)_b$

wherein, R₁, R₂, R₃ and R₄ are the same or different, each being a linear or branched alkyl group of 1-20 carbons; an aryl group which is unsubstituted or substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons; a linear or branched alkyl group of 1-20 carbons having at least one hetero-atom selected from the group consisting of F, S, N, O, P and Si; an aryl group which is substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups

of 1-20 carbons containing at least one hetero-atom selected from the group consisting of F, S, N, O, P and Si; an aryl group having a heterocyclic moiety of 2-24 carbons which is unsubstituted or substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons; an aryl group having a heterocyclic moiety of 2-24 carbons which is substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons containing at least one hetero-atom selected from the group consisting of F, S, N, O, P and Si; a substituted or unsubstituted trialkylsilyl group of 3-40 carbons; a substituted or unsubstituted arylsilyl group of 3-40 carbons; a substituted or unsubstituted carbazole group of 12-60 carbons; a substituted or unsubstituted phenothiazine group of 6-60 carbons; or a substituted or unsubstituted arylamine group of 6-60 carbons; R₅, R₆, R₇ and R₈ are the same or different, each being hydrogen; a linear or branched alkyl or alkoxy group of 1-20 carbons; an aryl group which is unsubstituted or substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons; a linear or branched alkyl or alkoxy group of 1-20 carbons having at least one hetero-atom selected from the group consisting of F, S, N, O, P and Si; an aryl group which is substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons containing at least one hetero-atom selected from the group consisting of F, S, N, O, P and Si; an aryl group having a heterocyclic moiety of 2-24 carbons which is unsubstituted or substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons; an aryl group having a heterocyclic moiety of 2-24 carbons which is substituted with at least one

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substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups

of 1-20 carbons containing at least one hetero-atom selected from the group consisting of F, S, N,

O, P and Si; a substituted or unsubstituted trialkylsilyl group of 3-40 carbons; a substituted or

unsubstituted arylsilyl group of 3-40 carbons; a substituted or unsubstituted carbazole group of 12-

60 carbons; a substituted or unsubstituted phenothiazine group of 6-60 carbons; or a substituted or

unsubstituted arylamine group of 6-60 carbons; a, b, c and d are the same or different, each being an

integer of 1-3; Ar is selected from the group consisting of a substituted or unsubstituted aromatic

moiety of 6-60 carbons, a substituted or unsubstituted heteroaromatic moiety of 2-60 carbons, and

combinations thereof; and

l is an integer of 1-100,000, m is an integer of 0-100,000, and n is an integer of 1-100,000.

Claim 2 (Previously Presented): The organic electroluminescent polymer as set

forth in claim 1, wherein said R₁, R₂, R₃ and R₄, respectively are selected from the following group:

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Claim 3 (Currently Amended): The organic electroluminescent polymer as set forth in claim 1, wherein said R_5 and R_6 , respectively are selected from the following group:

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wherein, R₉ and R₁₀ are the same or different, and respectively are a linear or branched alkyl group of 1-20 carbons;

R₁₁ is hydrogen or a linear or branched alkyl, alkoxy or trialkylsilyl group of 1-20 carbons;

R₁₂ and R₁₃ are the same or different, and respectively are a linear or branched alkyl group of 1-20 carbons;

R₁₄, R₁₅ and R₁₆ are the same or different, and respectively are a linear or branched alkyl or alkoxy group of 1-20 carbons; or an aryl group which is unsubstituted or substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons;

R₁₇, R₁₈, R₁₉, R₂₀, R₂₁ and R₂₂ are the same or different, and respectively are hydrogen; a linear or branched alkyl or alkoxy group of 1-20 carbons; or an aryl group which is unsubstituted or

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substituted with at least one substituent group selected from the group consisting of linear or branched alkyl and alkoxy groups of 1-20 carbons;

X is O or S;

Y and Z are N; and

a is an integer of 1-3.

Claim 4 (Previously Presented): The organic electroluminescent polymer as set forth in claim 1, wherein said R_7 and R_8 , respectively are selected from the following group:

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Claim 5 (Previously Presented): The organic electroluminescent polymer as set forth in claim 1, wherein said Ar is selected from the following group:

(i) a substituted or unsubstituted arylene group of 6-60 carbons;

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(ii) a substituted or unsubstituted heterocyclic arylene group of 2-60 carbons in which at

least one hetero-atom selected from the group consisting of N, S, O, P and Si is incorporated in an

aromatic ring;

(iii) a substituted or unsubstituted arylenevinylene group of 6-60 carbons;

(iv) a substituted or unsubstituted arylamine group of 6-60 carbons;

(v) a substituted or unsubstituted carbazole group of 12-60 carbons; and

(vi) combinations thereof,

in which Ar may include a substituent selected from the group consisting of a linear or

branched alkyl or alkoxy group of 1-20 carbons; an aryl group which is unsubstituted or substituted

with at least one substituent group selected from the group consisting of linear or branched alkyl

and alkoxy groups of 1-20 carbons; a cyano group (-CN); and a silyl group.

Claim 6 (Previously Presented): The organic electroluminescent polymer as set

forth in claim 1, wherein a ratio of 1:m ranges from 5:95 to 95:5.

Claim 7 (Previously Presented): The organic electroluminescent polymer as set

forth in claim 5, wherein said Ar is present in an amount of 5-15 mol % in the electroluminescent

polymer, with proviso of being a substituted or unsubstituted arylamine group of 6-60 carbons.

Claim 8 (Previously Presented): The organic electroluminescent polymer as set

forth in claim 1, wherein the organic electroluminescent polymer has the following Formula 2:

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Formula 2

wherein, n_1 is an integer from 1 to 100,000.

Claim 9 (Previously Presented): The organic electroluminescent polymer as set forth in claim 1, wherein the organic electroluminescent polymer has the following Formula 3:

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Formula 3

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wherein, l₁ is an integer from 1 to 100,000, and m₁ is an integer from 1 to 100,000.

Claim 10 (Previously Presented): The organic electroluminescent polymer as set forth in claim 1, wherein the organic electroluminescent polymer has the following Formula 4:

Formula 4

$$C_{\theta}H_{17}O$$

$$C_{\theta}H_{17}O$$

$$OC_{\theta}H_{17}$$

$$OC_{\theta}H_{17}O$$

$$OC_{\theta}H_{17}O$$

wherein, l₂ is an integer from 1 to 100,000, and m₂ is an integer from 1 to 100,000.

Claim 11 (Previously Presented): An organic electroluminescent device having at least one layer comprising the polymer according to claim 1 between an anode and a cathode, wherein, the layer is a hole-transport layer, a light emitting layer, an electron-transport layer or a hole blocking layer.

Claim 12 (Previously Presented): The organic electroluminescent device as set forth in claim 11, wherein the electroluminescent device comprises a structure of anode/light emitting layer/cathode, anode/hole transport layer/light emitting layer/cathode, or anode/hole transport layer/light emitting layer/electron transport layer/cathode.